

ChemLINE® Primer

Superior Chemical Resistance Exceptional Toughness

Description

ChemLine® Primer is a surface tolerant primer and sealer with high elongation for priming concrete substrates.

Purpose

ChemLine® Primer is an ambient or low temperature forced cure coating for the sealing of porous concrete surfaces.

Packaging

ChemLine® Primer is packaged in 1-gallon kits.

Physical Properties

■ Mandrel Bend Test (1/8" diameter) (ASTM D522-88)	270°
■ Elongation (ASTM D522-88)	42%
■ Impact Test (ASTM D2794)	280 in. lbs.
■ Pull Off Strength (ASTM D4541)	2800-3100 psi
■ V.O.C. Level	Zero
■ Lead/Chromate Content	Zero
■ Pot Life	240 minutes @ 75°F (24°C)
■ Viscosity Reduction (if required)	Reduce with Toluene or Xylene
■ Flash Point	> 212°F (100°C)
■ Solids by Volume	100%
■ Solids by Weight	100%
■ Recommended DFT	Average; Concrete: 3-6 mils (75-150 µ)

Application Highlights

On Concrete Substrates – ChemLine® Primer:

- Seals and strengthens concrete
- Crack bridging capability
- Prevents hydrostatic water leakage
- Eliminates bubbling and blistering
- Allows coating of green concrete
- Two topcoats of ChemLine® 784/32 delivers a chemical resistant concrete structure able to resist concentrated acids, caustics, and solvents.

On Steel Substrates – ChemLine® Primer:

- Superior bond strength and adhesion
- Surface tolerant
- Adheres to poorly prepped surfaces
- High elongation
- Withstands temperatures to 300°F (150°C)
- Excellent primer for ChemLine® 784/32 or ChemLine® 784/31 for unparalleled chemical resistance and abrasion resistance.



Finished ChemLine® Primer application over concrete surface.

Application Data

Surface Preparation

Compressed air shall be free of oil and water contamination. All surfaces to be coated shall be cleaned prior to abrasive blasting: For surface contaminated with grease and oils, degrease surface prior to abrasive blasting with a commercial degreaser, alkaline solution or with a hydro-blast at 5,000 psi (34.5 MPa) containing a degreasing solution which will remove dirt, oil and grease. For surfaces contaminated with soluble salts, the surface shall be steam cleaned or washed with warm, clean water (distilled or demineralized water is preferred). **NOTE – Check surface for soluble salt contamination before blasting.** The surface shall be mechanically cleaned using sharp angular abrasives, e.g., 8-20 silica sand, 1240 Black Beauty 1240 or G-14 steel grit. Preparation can be by Blastrac machine or open blasting. Waterjetting, slurryblasting are also acceptable methods. Contact APC Technical Department for additional details on repairing and preparing concrete. The surface profile shall result in an anchor pattern equal to 60 - 80 Galt sandpaper. After mechanical cleaning, the surface shall be vacuumed with a bristle nozzle to remove all dust, grit and embedded abrasive. In addition, the surface shall be tested again for soluble salt contamination. **NOTE:** One gallon and one quart kits are available. Always mix a complete kit and at no time split or break down kits to make smaller portions.

Primer Coat - Apply Chemline® Primer at a wet film thickness of about 3-6 mils (75-150 microns). Allow the ChemLine® Primer to reach "B" stage before applying subsequent coats.

Material Staging and Curing Time

"B" Stage Definition. The "B" stage has been reached when the coating is firm-to-the-touch and has just lost its tackiness (i.e., coating is still solvent soluble); at this stage the solvent has evaporated from the coating.

"B" Staging Procedures. ChemLine® 784/32 and ChemLine® Primer will "B" stage under ambient conditions at 70°F (22°C) in

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Advanced Polymer Coatings

Avon Ohio 44011 U.S.A.

+01 440/937-6218 Phone

+01 440/937-5046 Fax

800/334-7193 Toll-Free in USA & Canada

approximately 8-18 hours depending on atmospheric conditions. However, the "B" stage can be accelerated by blowing warm air across the coating surface at 90-100°F (32-43°C) for approximately 2-3 hours. (NOTE: This is air and not substrate temperature). Before advancing from the "B" stage, allow the solvent to flash from the coating for 1-2 hours. It is important to ensure good air flow across the coating in order to remove solvent prior to forced air "B" staging. Care must be exercised when accelerating the "B" stage so the coating is not overcured prior to application of subsequent coats.

Recoat Time

Air Temperature	Overcoat Time (hours)	
	Min.	Max.
60°F(16°C)	12	72
68°F(20°C)	8	72
77°F(25°C)	8	48
86°F(30°C)	6	48

The maximum recoat time begins after the "B" stage has been reached. Perform low temperature heat cure within 48 hours of reach "B" stage on the final coat. **NOTE –** Sufficient air flow across the coating and/or through enclosed spaces is necessary in order to assist in removing solvent from the coating before applying the next coat or performing the final heat cure.

NOTE: Temperatures listed are air temperature, not substrate temperature. Times provided are approximate only. Times may differ due to exact conditions.

"B" Stage. The "B" stage has been reached when the coating is firm-to-the-touch and has lost its tackiness (but still solvent soluble); at this stage, the solvent has evaporated from the coating and is ready for the second coat or final cure.

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